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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/585,473	07/07/2006	David Mark Allison	G40.2-13290-US01	5905

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EXAMINER

SCHAPER, MICHAEL T

ART UNIT	PAPER NUMBER
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3775

MAIL DATE	DELIVERY MODE
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11/24/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/585,473	Applicant(s) ALLISON, DAVID MARK	
	Examiner MICHAEL T. SCHAPER	Art Unit 3775	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 November 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 3,6-8,11-14 and 23-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 3,6-8,11-14 and 23-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 5 Nov 2009 has been entered.

Response to Arguments

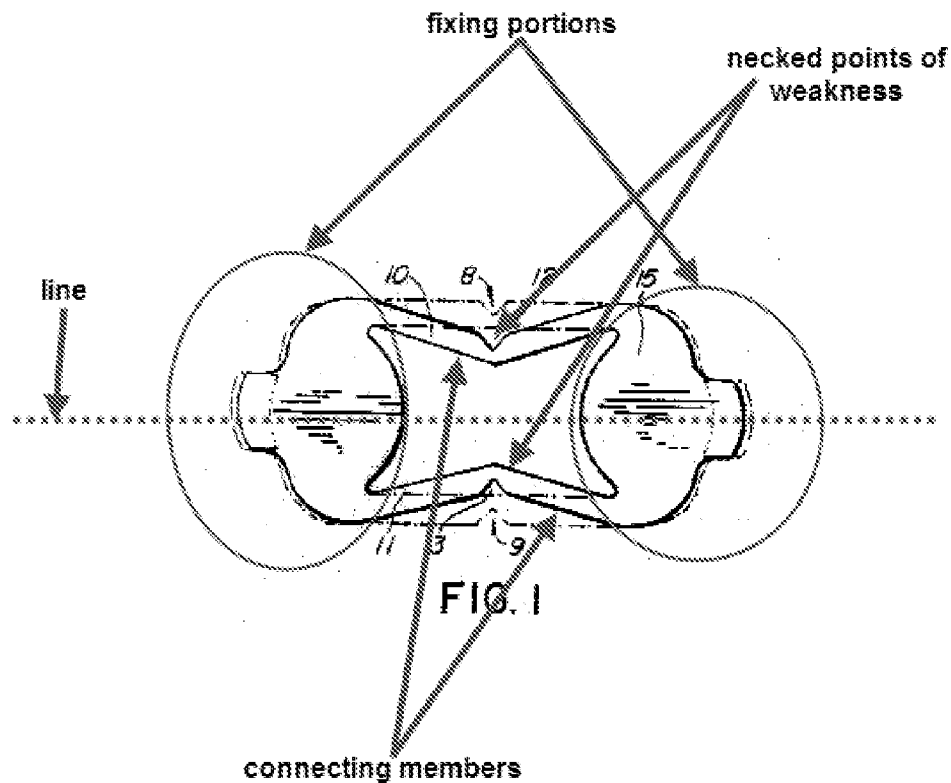
Applicant's arguments with respect to all claims have been considered but are moot in view of the new ground(s) of rejection. See below.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3, 6-8, 23-25, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wevers et al. (US 4444181) in view of Nicola (US 2580821).



As to claims 3, 6-8, 23-24, and 26, Wevers discloses a bone fixing device (see examiner-annotated FIG. 1 above) for fixing bone pieces together, the bone fixing device consisting of first and second fixing portions; and first and second connecting members formed integrally with the first and second fixing portions, each connecting member extending directly to each of the first and second fixing portions and lying symmetrically about a line extending through a centre of the fixing portions, the connecting members being deformable to draw the fixing portions together wherein the connecting members substantially maintain their position after deformation; wherein the connecting members are deformable symmetrically with respect to the a line extending through the center of the pair-of fixing portions such that the fixing portions are drawn toward one another along the line; wherein the connecting members are parallel to each

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other prior to being deformed (see FIG. 1); wherein each connecting member has at least one point of weakness at which bending of the connecting member occurs in preference to elsewhere on the connecting member; wherein each of the at least one point of weakness is a necked portion of the respective connecting member.

Wevers discloses the claimed invention except for each fixing portion provided with either a single hole or two holes only; wherein each fixing portion comprises a respective annulus defining each of the holes; wherein the first fixing portion comprises two holes wherein the two holes lie on the line extending through the centre of the fixing portions.

Nicola discloses a deformable bone fixation plate wherein each fixing portion is provided with two holes only (2 / 2 for each side); wherein each fixing portion comprises a respective annulus defining each of the holes (see FIGS. 2-5); wherein the first fixing portion comprises two holes wherein the two holes lie on the line extending through the centre of the fixing portions (see FIGS. 2-5) for the capability of using a screw and its ease of removability (see col. 2 / lines 4-48).

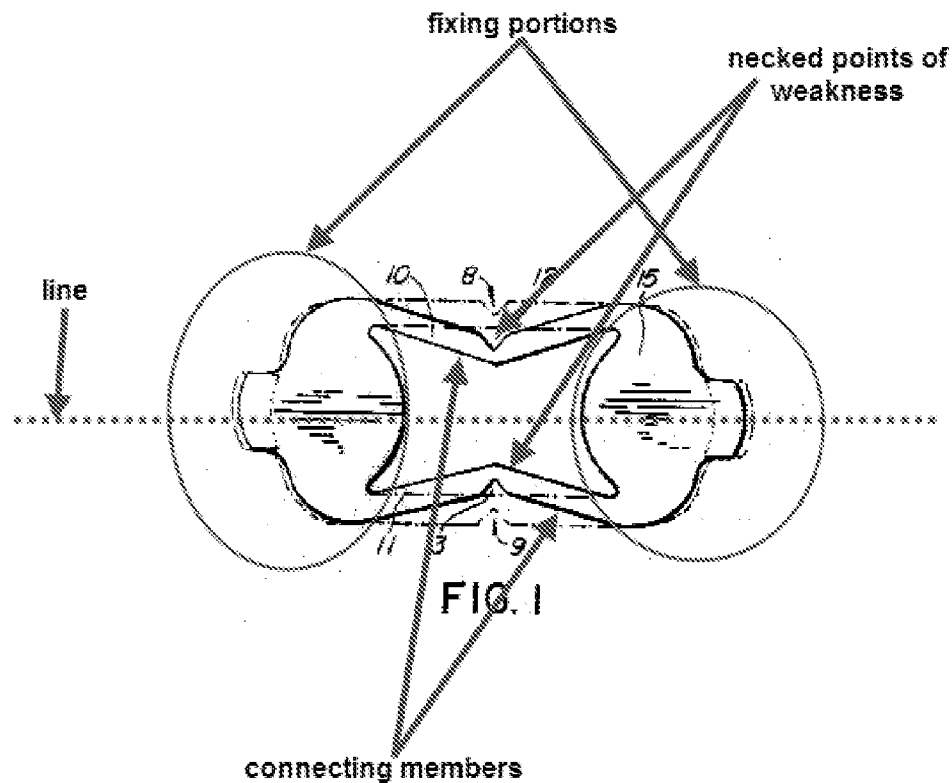
At the time of invention, it would have been obvious to a person of ordinary skill in the art to have modified the device of Wevers with a deformable bone fixation plate wherein each fixing portion is provided with either a single hole or two holes only; wherein each fixing portion comprises a respective annulus defining each of the holes; wherein the first fixing portion comprises two holes wherein the two holes lie on the line extending through the centre of the fixing portions for the capability of using a screw and its ease of removability.

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As to claim 25, Wevers and Nicola discloses the claimed invention except for wherein the two holes of the first fixing portion lie on a line perpendicular to the line extending through the centre of the fixing portions (*e.g.* FIG. 11 in the instant application).

At the time of invention, it would have been obvious to a person of ordinary skill in the art to have modified the device of Wevers and Nicola with the two holes of the first fixing portion lying on a line perpendicular to the line extending through the centre of the fixing portions since the mere rearrangement parts (*e.g.* holes, here) of an invention involves only routine skill in the art, and additionally, the device of Wevers in view of Nicola would have functioned properly and in a similar manner as before the modification was applied.

Claims 11 and 27-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wevers et al. (US 4444181) in view of Reisberg (US 5468242) further in view of Sarver et al. (US 5868746).



Wevers discloses a modular system (see examiner-annotated FIG. 1 above) for fixing bone pieces together, the modular system comprising a bone fixing device, the bone fixing device consisting of first and second fixing portions, and first and second connecting members formed integrally with the first and second fixing portions, each connecting member extending directly to each of the first and second fixing portions and lying symmetrically about a line extending through a centre of the fixing portions, the connecting members being deformable to draw the fixing portions together wherein the connecting members substantially maintain their position after deformation.

Wevers discloses the claimed invention except for the modular system comprising at least two bone fixing devices; wherein each fixing portion provided with a single hole; wherein one fixing portion of one of the bone fixing device concentrically

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overlaps with and is pivotally connectable to a fixing portion of another one of the bone fixing devices by a bone fastener extending through the holes of the overlapped fixing portions; wherein each fixing portions is in the form of an annulus; wherein the annulus defines the hole of the fixing portion; wherein the fixing portion of each bone fixing device has a thickness of approximately one half of that of the connecting members.

Reisburg discloses a bone fixation implant wherein each fixing portion (40, 42) provided with a single hole (41); wherein each fixing portions is in the form of an annulus (see FIG. 3); wherein the annulus defines the hole of the fixing portion (see FIG. 3); wherein the fixing portion of each bone fixing device has a thickness (*e.g.* superior-inferior thickness at hole 136) of *approximately* one half of that of the connecting members (*e.g.* at 126) (in view of FIG. 13) for using bone screw fixation (col. 5 / lines 16-38).

Sarver discloses a bone plate fixation system (col. 10 / lines 37-65) comprising at least two bone fixing devices (line 59); wherein one fixing portion of one of the bone fixing device concentrically overlaps with (lines 61-62) and is pivotally connectable (implied, as it's used for specific surfaces requirements—line 58—in view of the geometry of the disclosed plate 64 in FIG. 4, and can pivot with respect to each other before connection with each other) to a fixing portion of another one of the bone fixing devices by a bone fastener (line 61) extending through the holes of the overlapped fixing portions for adapting to specific surface requirements of the bone surfaces (lines 56-58).

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At the time of invention, it would have been obvious to a person of ordinary skill in the art to have modified the device of Wevers with a bone fixation implant wherein each fixing portion provided with a single hole; wherein each fixing portions is in the form of an annulus; wherein the annulus defines the hole of the fixing portion; wherein the fixing portion of each bone fixing device has a thickness of approximately one half of that of the connecting members in view of Reisburg for using bone screw fixation and to have further modified the device of Wevers and Reisburg with a bone plate fixation system comprising at least two bone fixing devices; wherein one fixing portion of one of the bone fixing device concentrically overlaps with and is pivotally connectable to a fixing portion of another one of the bone fixing devices by a bone fastener extending through the holes of the overlapped fixing portions in view of Sarver for adapting to specific surface requirements of the bone surfaces.

Claims 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wevers et al. (US 4444181) in view of Reisberg (US 5468242) further in view of Sarver et al. (US 5868746) further in view of Cohen (US 6206882).



Cohen discloses a plating system comprising a washer (see examiner-annotated FIG. 6 above) capable of concentrically overlapping with an annulus of a bone fixing device which is not overlapped by another bone fixing device; wherein the hole within the at least one each washer comprises a hole having a frusto-conical portion to receive the head of a bone screw; wherein the hole within the at least one each washer comprises a cylindrical portion to receive the shaft of a bone screw for compressibly preventing movement of the fastener while functioning (col. 4 / lines 35-44).

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At the time of invention, it would have been obvious to a person of ordinary skill in the art to have modified the device of Wevers, Reisburg, and Sarver with a washer for concentrically overlapping with an annulus of a bone fixing device which is not overlapped by another bone fixing device; wherein the hole within the at least one each washer comprises a hole having a frusto-conical portion to receive the head of a bone screw; wherein the hole within the at least one each washer comprises a cylindrical portion to receive the shaft of a bone screw in view of Cohen for compressibly preventing movement of the fastener while functioning.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL T. SCHAPER whose telephone number is (571)270-7413. The examiner can normally be reached on M-F, 7:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Barrett can be reached on (571)272-4746. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/M. T. S./
Examiner, Art Unit 3775

/Thomas C. Barrett/
Supervisory Patent Examiner, Art
Unit 3775